**Federal Aviation
Administration**

*CATM – Flow Control Management –
Strategic Flow Management Integration
(Integration Execution of Flow Strategies
Into Controller Tools)*

Date: November 2008

Overview

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Project Capability

- **Provide improvements in the En Route ATC automation to support traffic flow initiatives being implemented by Traffic Flow Management - Modernization**

- **Improve communication, dissemination, and display of flow strategy information to the controllers who must implement it**

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Project Smart Sheet

Project Description
Flow Control Management – Strategic Flow, Integration Execution of Flow Strategies into Controller Tools
This provides for incremental improvements of the En Route ATC Automation to support the issuing of TFM requested aircraft-specific reroutes. These improvements include tools to automatically receive, process and display TFM reroute information, provide identification of aircraft affected by the TMI, and timely electronic communication of TMI information to relevant ATC operational positions.

Description of Problem
- Current infrastructure to support traffic management initiatives is a patchwork of manual and automated capabilities

- A common and wide-ranging TMI is the rerouting of traffic around severe weather or other significant congestion. Increased automation support and integration provides the opportunity to increase efficiency and effectiveness of reroute strategies

- As research matures and operational requirements are clarified, new capabilities are planned for incremental incorporation into ERAM to support the issuing of TFM requested aircraft-specific reroutes.

- TFM Work Package 2 Funding Line did not include companion funding for the En Route and Terminal pre-implementation and solution implementation to fully implement the TFM planned capability

Solutions

- Provide enhancements to En Route ATC Automation to receive, process and display TFM reroute information for En Route ATC automation , initially for pre-departure aircraft.

- Develop Ops Concepts, Con Use and requirements for En Route Post Release 3 and Mid-Term baselines and appropriate Terminal baselines

- Provide planning and coordination and potential implementation for incremental improvements to En Route Automation coordinated with and supporting the issuing of TFM requested aircraft-specific reroutes and improvements in Terminal Systems for receipt and processing of the TMI information

Support to Goals

Flight Plan: Increase capacity to meet projected demand and reduce congestion

NextGen Implementation Plan: TBD

Interdependencies and Constraints

Capabilities/OIs, EA Decision Points:

ERAM Post Release 3 Final Investment Decision

En Route Mid-Term Final Investment Decision

Dependencies

TFM-M, SWIM, ERAM Release 1, Data Communications, training, procedures, airspace redesign, flight object, TDLS, TFDM, and NAS Voice Switch.

Projects/Demonstrations/Programs: TBD

Project Schedule (FY 09)

Description	S	O	N	D	J	F	M	A	M	J	J	A	S
Definition of XFS Activities and alignment with TFMM Work Package 2 Activities				███	███	███							
1a) Implementation of Pre-departure Reroute Amendments with manual coordination						███	███	███	███	███	███	███	███
1b) Develop ConUse for Pre-departure Reroute Amendments with automation support for the coordination								███	███	███	███	███	███

Provides En Route and Terminal Support (prototyping, ConUse development etc.) and solution implementation into controller tools for Flow Management initiatives implemented by TFM-M Work Package 2

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Project Schedule (FY 10)

Description	S	O	N	D	J	F	M	A	M	J	J	A	S
1a) Implementation of Pre-departure Reroute Amendments with manual coordination													
1b) Develop ConUse for Pre-departure Reroute Amendments with automation support for the coordination													
Remaining Activities TBD													

Provides En Route and Terminal Support (prototyping, ConUse development etc.) and solution implementation into controller tools for Flow Management initiatives implemented by TFM-M Work Package 2

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Project Schedule

	Start	Finish
Implementation of Pre-departure Reroute with manual coordination	FY09	FY10
Con-Use of pre-departure reroute with automation coordination support	FY09	FY10

All other items TBD until after coordination with ATO-E, ATO-T, ATO-R, and ATO-P

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Project Details

- ## Current Status
  - – FY09 Funding is for
    - • Implementation of initial increment of pre-departure reroute planned for ERAM Release 2
    - • Definition of project plan for this CIP line
    - • Coordination with related programs such as TFM-M WP 2
    - • Identification of incremental functionality and needed Investment Analysis activities for ERAM Post Release 3, En Route Mid-Term, and appropriate Terminal projects

- ## Acquisition Strategy
  - – FY09
    - • ERAM contract for Implementation
    - • Existing TAC2, MITRE Industrial Funding, Terminal Support Contracts
  - – FY10 and Beyond - TBD

- ## Related Programs
  - – TFM-M Work Package 2, SWIM Segment 1, ERAM, DataComm, TFDM, Other Terminal Programs

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Project Details

- ## System Dependencies

  – TFM-M Work Package 2 initiatives require corresponding automation improvements in En Route and Terminal Systems to achieve desired benefits

  – Near-term requirements for
    - ERAM Post R3 Final Investment Decision target FY10
    - Terminal TFDM Final Investment Decision target TBD

- ## System Requirements - TBD

- ## Other Activities Required to Reach Implementation

  – Development of project plan to incrementally identify needed pre-implementation work

  – Human-in-the-loop Simulations, prototypes, Ops Concept work, ConUse Development

  – Other - TBD

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Resources

- **FAA Personnel**
  - ATO-T – Terminal Systems
  - ATO-R – TFM-M
  - ATO-E – Program Operations, SOS, F&P

- **Other Government Personnel**
  - TBD

- **Contract Personnel**
  - TAC2, MITRE, MCRI, Terminal Support
  - ERAM Contractor
  - Others - TBD

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Challenges

- **Near term funding for planning support and ERAM R2 implementation**

- **Consistent NextGen portfolio funding strategy across NextGen multi-program/multi-domain CIP lines for JRC planning**

  – Does each CIP line include funding for all programs/domains participating in the solution?

    OR

  – Does each CIP line fund Investment Analysis work with separate JRC baselines for Solution Implementation (e.g. ERAM Post R3, TFM-M, TFDM etc)

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Acquisition Status/Requirements

- **Existing Contracts**
  - ERAM
    - Vendor – Lockheed Martin
    - Contracting Officer – Tim Costas/ATO-A
    - COTR – Steve Skipper/ATO-E
  - TAC2
  - MITRE Industrial Funding
  - Other - TBD
- **New Contract Requirements**
  - TBD

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FY '09 NextGen Implementation Plan Commitments
(PLA Milestones)

- ## FY '09 Major Milestones to be reported in the NextGen Implementation Plan - None
- ## FY '09 NASEA Decisions supported - None
- ## FY '09 Deliverables/Products - None
- ## FY '09 Funding Request

NextGen… Integrating Ideas, Systems and Solutions